

ABSTRACT

A VSB demodulating device and method in a DTV receiver is disclosed, in which a VSB signal is received for independent carrier wave recovery and symbol clock recovery. An A/D converter samples the output of a SAW filter with a fixed frequency and converts the resultant value to a digital signal. A carrier wave recovery portion recovers a carrier wave from a base band pilot signal output from a multiplier, and a timing recovery portion recovers a symbol clock used for a transmitter using the output of a matched filter disposed in a base band. In this case, the carrier wave recovery portion and the timing recovery portion are independently operated without affecting each other. Thus, the carrier wave recovery portion is operated stably even in case where a fatal ghost exists in a band used for timing recovery. Furthermore, since a closed loop control can be implemented independently for carrier wave recovery and timing recovery, stability of the system is improved, thereby improving performance of the DTV receiver.